



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of
Australia's High Seas Permits

May, 2013

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Assistant Secretary
Marine Biodiversity and Biosecurity Branch
Department of Sustainability, Environment, Water, Population and Communities
GPO Box 787
Canberra ACT 2601

Disclaimer

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for Sustainability, Environment, Water, Population and Communities or the Australian Government.

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Table 4 contains a description of the issues identified by the department with the current management arrangements governing Australia's High Seas Permits and outlines the proposed recommendations that would form part of the decision to include product derived through operation of the Permits in the list of exempt native specimens for a five year period.

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Table 1: Summary of Australia's High Seas Permits

<p>Publicly available information relevant to the fishery</p>	<ul style="list-style-type: none"> ▪ <i>Fisheries Management Act 1991</i> ▪ Fisheries Management Regulations 1992 ▪ Australian Bureau of Agricultural and Resource Economics and Sciences – Fishery Status Reports 2011 ▪ Australian Bureau of Agricultural and Resource Economics and Sciences – Fishery Status Reports 2010 ▪ Sustainability of harvest levels by Australian flagged vessels in the high seas areas of the South Pacific Ocean and South Indian Ocean, November 2012 ▪ Bottom Fishery Impact Assessment – Australian report for the South Pacific Regional Fisheries Management Organisation (SPRFMO), July 2012 ▪ Bottom Fishery Impact Assessment – Australian report for the Southern Indian Ocean Fisheries Agreement (SIOFA), October 2011 ▪ Submission to SEWPAC – High Seas Permits – February 2013 ▪ Submission to SPRFMO – High seas: conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems – August 2011
<p>Area</p>	<p>Australia's High Seas Permits, for the purposes of this assessment, refer to permits issued by the Australian Fisheries Management Authority for fishing operations of non-highly migratory species in the area of waters covered by two international regional fisheries agreements:</p> <ul style="list-style-type: none"> ▪ the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, which establishes the South Pacific Regional Fisheries Management Organisation (SPRFMO) (see Figure 1), and ▪ the Southern Indian Ocean Fisheries Agreement (SIOFA) (see Figure 2). <p>The South Tasman Rise, which is covered by the SPRFMO area, has been closed to fishing by Australian flagged vessels since 2007. The Australian Government will not permit fishing within this area until management measures have been agreed with the New Zealand government.</p> <p>Australian flagged vessels fishing in the high seas of the south Pacific Ocean tend to focus their efforts in areas surrounding the Lord Howe Rise and Norfolk Ridge. Australian fishing effort in the southern Indian Ocean is more widely dispersed and includes ridges and plateaus in the mid and western parts of the region.</p>

Target Species	<p>High sea fishing operations in the SPRFMO and SIOFA areas target a wide variety of species. The target species assessed in the Australian Bureau of Agricultural and Resource Economics and Sciences' report, 'Sustainability of harvest levels by Australian flagged vessels in the high seas of the South Pacific Ocean and South Indian Ocean' (the sustainability assessment) include:</p> <ul style="list-style-type: none"> ▪ alfonsino (<i>Beryx splendens</i>) ▪ blue-eye trevalla (<i>Hyperoglyphe antarctica</i>) ▪ morwong (<i>Nemadactylus macropterus</i> and <i>N. spp.</i>) ▪ ocean blue-eye (<i>Schedophilus labyrinthica</i>) ▪ ocean perch (<i>Helicolenus barathri</i> and <i>H. percoides</i>) ▪ orange roughy (<i>Hoplostethus atlanticus</i>) ▪ smooth oreodory (<i>Pseudocyttus maculatus</i>), and ▪ spikey oreodory (<i>Neocyttus rhomboidalis</i>)
Fishery status	<p>The sustainability assessment, which was released in November 2012, assessed stocks accessed by Australian flagged vessels using trawl and non-trawl methods in the SPRFMO and SIOFA areas as:</p> <p><i>Trawl fishing in the SPRFMO area</i></p> <ul style="list-style-type: none"> ▪ alfonsino – not subject to overfishing ▪ orange roughy – uncertain as to whether subject, or not, to overfishing ▪ smooth oreodory – not subject to overfishing ▪ spikey oreodory – not subject to overfishing <p><i>Non-trawl fishing methods in the SPRFMO area</i></p> <ul style="list-style-type: none"> ▪ blue-eye trevalla – not subject to overfishing ▪ morwong – not subject to overfishing ▪ ocean blue-eye – not subject to overfishing ▪ ocean perch – not subject to overfishing <p><i>Trawl fishing in the SIOFA area</i></p> <ul style="list-style-type: none"> ▪ alfonsino – uncertain as to whether subject, or not, to overfishing ▪ blue-eye trevalla – not subject to overfishing ▪ ocean blue-eye – not subject to overfishing ▪ orange roughy – uncertain as to whether subject, or not, to overfishing ▪ smooth oreodory – not subject to overfishing ▪ spikey oreodory – not subject to overfishing <p>(Source: Woodhams et al., 2012)</p>

<p>Gear</p>	<p>Australian flagged vessels targeting non-highly migratory species under Australia's High Seas Permits use either trawl or non-trawl methods, as described below.</p> <p><i>Trawl</i></p> <p>Midwater and demersal trawl methods are permitted for use when targeting non-highly migratory species under Australia's High Seas Permits. Midwater trawl nets are basically 'pelagic nets' designed for fishing close, but just off, the seafloor, touching down on the seafloor occasionally. The mesh size on midwater trawl nets is generally larger than on demersal trawl nets. In comparison, demersal trawl nets are designed to operate in contact with the seafloor, and use otter boards and bobbins (rubber wheels) on the footrope to allow the net to move easily across the seafloor while reducing the risk of entanglement (Williams et al., 2011a; Williams et al., 2011b). Demersal trawl nets are used much more frequently than midwater trawl nets by Australian flagged vessels in the SPRFMO and SIOFA areas.</p> <p><i>Non-trawl</i></p> <p>The two non-trawl methods used most often when targeting non-highly migratory species under Australia's High Seas Permits are demersal longlines (auto-longlining) and droplines. Other non-trawl methods which have been used historically are deepwater gillnets and demersal traps.</p> <p>Demersal longlining gear typically consists of a horizontally orientated 'mainline', with smaller lines (or 'snoods') with the hooks attached, connected to the mainline at 1 – 1.4 metre intervals. The total mainline length may be as long as 7500 metres. The mainline is either positioned onto the seafloor, or floated just up from the seafloor. One, or multiple, large anchors are attached at either end of the mainline to keep it at, or near, the seafloor. A 'downline' is used to connect the anchored mainline to buoys on the surface. Typically, these demersal longlining operations do not fish in depths exceeding 2000 metres. Operators typically utilise auto-longlining technology that enables semi-automated setting of baited hooks in a short period of time (Williams et al., 2011a; Williams et al., 2011b).</p> <p>Droplines, unlike longlines, have hooks attached to a line set vertically in the water column. The 'dropline' is held in position by a float at the surface and a single weight at the bottom. Droplines typically consist of 100 – 200 baited hooks which are attached to the bottom part of the vertical line using 'snoods' (similar to those used in demersal longlining). The maximum depth fished by droplines is about 1500 metres (Williams et al., 2011a; Williams et al., 2011b).</p> <p>Demersal traps have not been used under Australia's High Seas Permits since 2001 (Woodhams et al., 2012). While the use of traps is still permitted, there has been little interest in using them. The use of deepwater gillnets has not been permitted under Australia's High Seas Permits since 2010. Historically, deepwater gillnet fishing effort has only ever been a minor component of the total fishing effort by Australian flagged vessels on the high seas (Williams et al., 2011a; Williams et al., 2011b).</p>
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Season	1 January to 31 December																																
Commercial harvest 2010 – 2012	<p>For the years between 2010 and 2012, the documented species-specific harvest by Australian flagged vessels operating under Australia’s High Seas Permits is given below (in tonnes) for the SPRFMO Area:</p> <table><tr><td>SPRFMO Area</td><td>2010</td><td>2011</td><td>2012</td></tr><tr><td>blue-eye trevalla</td><td>8.6</td><td>26.8</td><td>33.9</td></tr><tr><td>jackass morwong</td><td>19.3</td><td>46.2</td><td>85.0</td></tr><tr><td>orange roughy</td><td>0.0</td><td>2.7</td><td>53.4</td></tr><tr><td>redthroat emperor</td><td>41.0</td><td>0.0</td><td>0.0</td></tr><tr><td>sea bream (morwong)</td><td>12.8</td><td>0.0</td><td>0.0</td></tr></table> <p>The documented total harvest (all species) of Australian flagged vessels operating under Australia’s High Seas Permits is given below (in tonnes) for the SPRFMO area:</p> <table><tr><td></td><td>2010</td><td>2011</td><td>2012</td></tr><tr><td>SPRFMO Area</td><td>119.4</td><td>165.2</td><td>393.7</td></tr></table> <p>Note that the Australian catch in the SIOFA area is not disclosed in this report in order to protect the commercial confidentiality of the single Australian operator that fishes in the SIOFA area.</p> <p>(Source: Australian Fisheries Management Authority)</p>	SPRFMO Area	2010	2011	2012	blue-eye trevalla	8.6	26.8	33.9	jackass morwong	19.3	46.2	85.0	orange roughy	0.0	2.7	53.4	redthroat emperor	41.0	0.0	0.0	sea bream (morwong)	12.8	0.0	0.0		2010	2011	2012	SPRFMO Area	119.4	165.2	393.7
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	2010	2011	2012																														
SPRFMO Area	119.4	165.2	393.7																														
Take by other sectors	<p>Vessels flagged to other countries fish for demersal species in the SPRFMO and SIOFA areas. For example, in recent years in the SPRFMO area vessels from Belize, China, the European Union, Korea and New Zealand have targeted demersal species in the area.</p> <p>For the years 2010 and 2011 (2012 not yet available), the reported total harvest by all countries of demersal fish species in the SPRFMO area, including the harvest by Australian flagged vessels, is given below (in tonnes):</p> <table><tr><td>SPRFMO Area</td><td>2010</td><td>2011</td></tr><tr><td>orange roughy</td><td>1474</td><td>1081</td></tr><tr><td>other species</td><td>544</td><td>645</td></tr></table> <p>(Source: SPRFMO, 2013a)</p> <p>There is currently no single database which estimates or collates total harvest by all countries of demersal fish species for the SIOFA area.</p>	SPRFMO Area	2010	2011	orange roughy	1474	1081	other species	544	645																							
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other species	544	645																															
Commercial licences issued	<p>As of February 2013, there were six individual High Seas Permits. Two provide access to fish in the SPRFMO area only and four provide access to fish in both the SPRFMO and SIOFA areas.</p>																																

Management arrangements	<p>Australia's High Seas Permits are issued by the Australian Fisheries Management Authority under section 32 of the <i>Fisheries Management Act 1991</i> for fishing operations on the high seas in the south Pacific and southern Indian Ocean.</p> <p>Key management arrangements that apply to Australia's High Seas Permits include:</p> <ul style="list-style-type: none"> ▪ area restrictions – fishing is restricted to areas previously fished ('footprints') during the historical reference periods of between 2002 and 2006 for the SPRFMO area and between 1999 and 2009 for the SIOFA area ▪ gear restrictions – fishing is restricted to demersal and midwater trawl, line and trap methods and the use of gillnets is prohibited ▪ catch trigger limits for the SPRFMO and SIOFA areas – a review of management arrangements is initiated once catches for target species in any year reach the average annual catch of between 2002 and 2006 for the SPRFMO area and between 1999 and 2009 for the SIOFA area ▪ trigger limits for interactions with vulnerable marine ecosystems – vessels must 'move-on' five nautical miles for the remainder of the fishing season if 50 kg of corals and sponges are caught in a single trawl shot or if 10 kg of coral and sponges are caught in a 1000 hook section of demersal line (demersal longlines and droplines), and ▪ mandatory requirements on permits that: <ul style="list-style-type: none"> - fish must be disposed of to a fish receiver permit holder - sharks must be landed with fins and livers unremoved - interactions must be avoided with EPBC Act protected species, and - vessel monitoring system to monitor vessel movements is to be used. <p>The management arrangements of Australia's High Seas Permits have been guided by relevant domestic legislation and policies (such as the Commonwealth Fisheries Harvest Strategy Policy), together with the outcomes of the United Nations General Assembly (UNGA) resolutions on sustainable fisheries and other relevant instruments, such as the Food and Agriculture Organisation (FAO) 'International guidelines for the management of deep-sea fisheries in the high seas'.</p> <p>The department notes that gillnets are no longer permitted for use under Australia's High Seas Permits. This is consistent with the SPRFMO conservation and management measure for Gillnets in the SPRFMO Convention Area and the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific. The department also recognises that Australian and New Zealand Governments are working to implement consistent conservation and management measures for their respective high seas bottom fishing operations through SPRFMO.</p>
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Management arrangements (cont...)	The Australian Fisheries Management Authority has advised that Australian operators in the SIOFA area have agreed to further restrict fishing, in addition to the footprint management system described above, to exclude eleven areas which have been voluntary closures since 2006.
Export	Export of non-highly migratory species caught by Australian flagged vessels on the high seas is mainly to markets in Japan, the United States, China and Russia.
Bycatch	To date, the Australian Fisheries Management Authority has not publicly reported on bycatch information collected by vessel operators and observers, apart from the interactions with EPBC Act protected species and vulnerable marine ecosystems, for Australian flagged vessels operating under Australia's High Seas Permits.
Interaction with Protected Species¹	<p>Since 2010, there has been one recorded death of a northern giant petrel (<i>Macronectes halli</i>) in trawl fishing gear, which is listed as vulnerable on the EPBC Act list of threatened species. The species is also an EPBC Act listed migratory and listed marine species.</p> <p>A sperm whale (<i>Physeter macrocephalus</i>) has also been recorded as being entangled in a trawl net in July 2012, and its life status was recorded as indeterminate. The sperm whale is listed under the EPBC Act as a cetacean and a migratory species.</p> <p>Six mako sharks (<i>Isurus oxyrinchus</i>) were caught in 2012 in auto-longlining operations. The mako shark is an EPBC Act listed migratory species, and fishers in Commonwealth fisheries are only permitted to retain the species if individuals are dead when retrieved to the vessel.</p> <p>The Australian Fisheries Management Authority has advised the department that trawl operations under Australia's High Seas Permits have 100 per cent observer coverage, and for non-trawl operations the first trip must have an observer onboard and 10 per cent coverage for trips thereafter. The Australian Fisheries Management Authority is also working on improved data collection by training observer and operators in identification of EPBC Act protected species.</p>

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, listed marine and listed migratory species

Ecosystem Impacts	<p>The department has considered the possible impacts of the operations of Australia's High Seas Permits on ecosystems as part of this assessment. Demersal trawling has the potential to cause significant impacts on the seafloor by reducing the structural complexity of the benthic environment by crushing, burying or exposing marine organisms.</p> <p>In line with the UNGA Resolutions 61/105 and 64/72, SPRFMO interim measures and the FAO guidelines for deep-sea fisheries, the Australian Fisheries Management Authority commissioned bottom fishery impact assessments, which were undertaken by CSIRO, for Australia's high seas fishing in SPRFMO and SIOFA areas (Williams et al., 2011a; Williams et al., 2011b). These assessments made two conclusions:</p> <ul style="list-style-type: none"> ▪ that the current overall risk of significant adverse impact on vulnerable marine ecosystems by Australian vessels fishing using bottom trawl and bottom-set auto-longline is <u>low</u>, and ▪ that the current overall risk of significant adverse impact on vulnerable marine ecosystems by Australian vessels fishing using mid-water trawl and droplining is considered <u>negligible</u>. <p>The Australian Fisheries Management Authority additionally commissioned the Australian Bureau of Agricultural and Resource Economics and Sciences to undertake a sustainability assessment of the harvest levels of deep-sea stocks. The assessment was completed in November 2012. This assessment complements the bottom fishery impact assessments undertaken by CSIRO and addresses a recommendation made at the time of inclusion of product taken on the high seas by Australian flagged vessels in the list of exempt native specimens in 2010. The sustainability assessment judged that none of the stocks assessed were 'subject to overfishing' by Australian vessels, although some stocks were classified as 'uncertain'.</p> <p>The department considers that, based on the findings of the bottom fishery impact assessments and the sustainability assessment, the likely impact of current fishing operations under Australia's High Seas Permits on the ecosystem to be minimal.</p>
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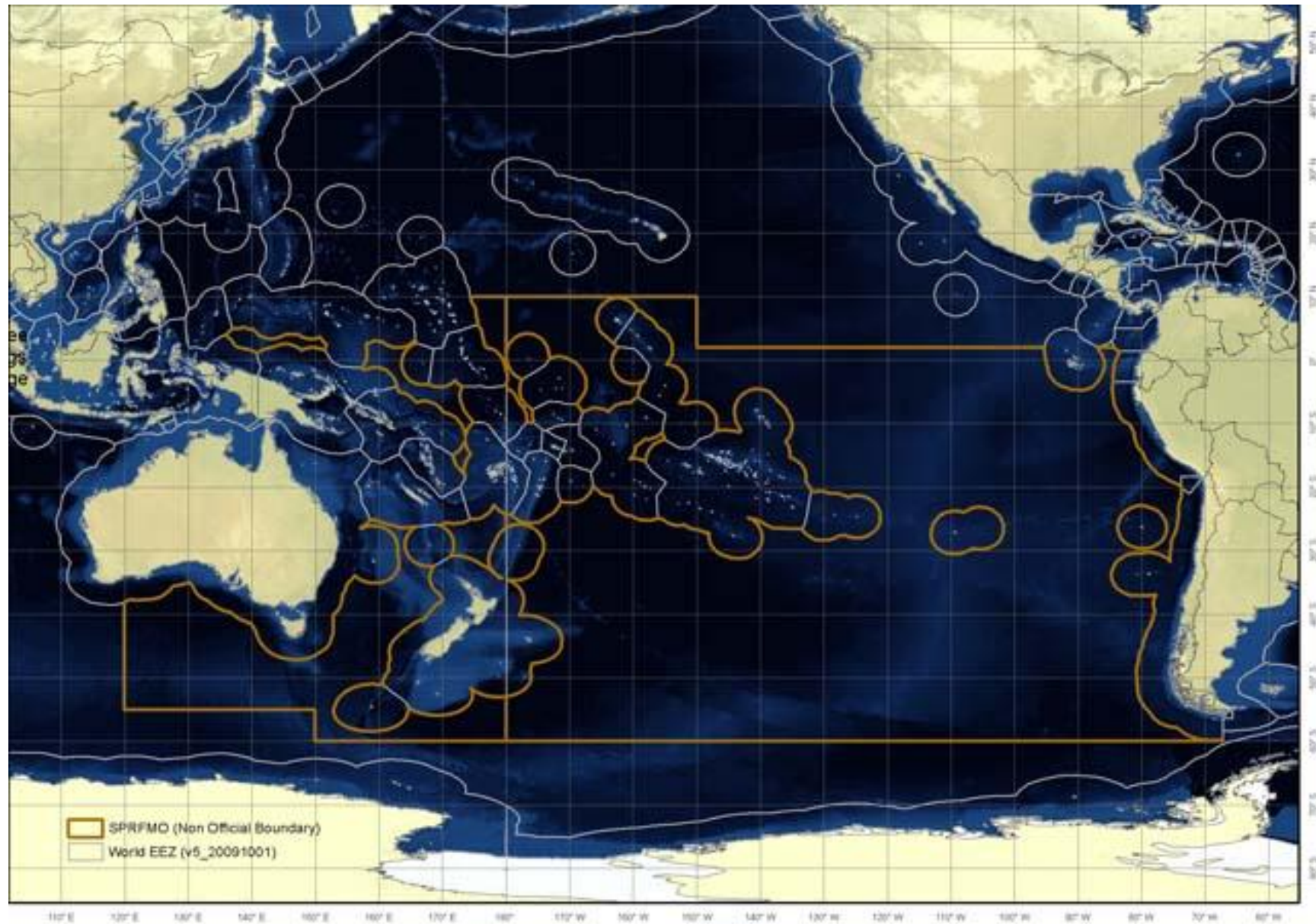


Figure 1: South Pacific Regional Fisheries Management Organisation (SPRFMO) Area of Competence
(Source: Australian Fisheries Management Authority)

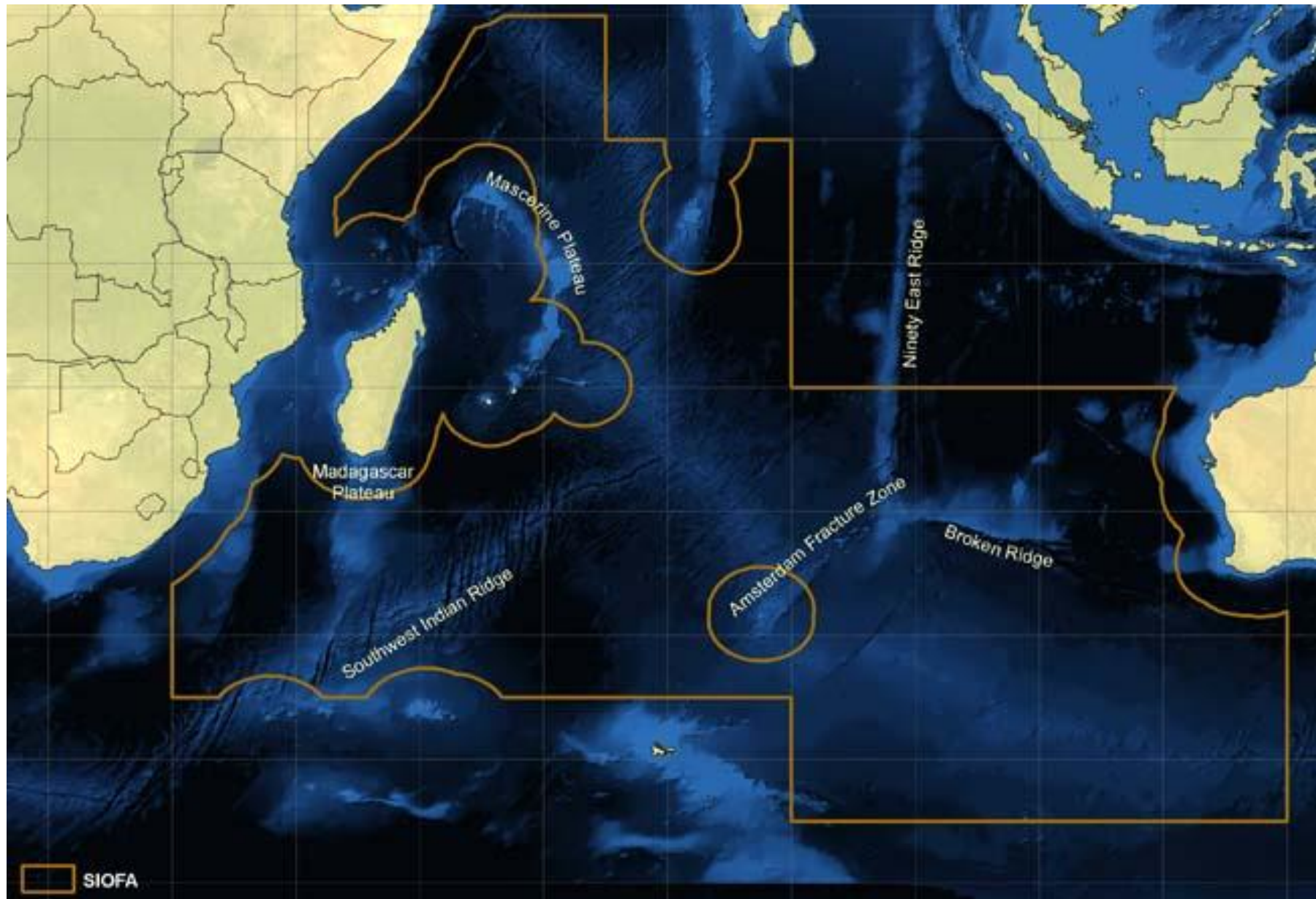


Figure 2: Southern Indian Ocean Fisheries Agreement (SIOFA) Area of Competence
(Source: Australian Fisheries Management Authority)

Table 2: Progress in implementation of recommendations made when product taken on the high seas by Australian flagged vessels was included in the list of exempt native specimens in 2010

Recommendation	Progress	Recommended Action
1. The Australian Fisheries Management Authority to review, based on available scientific information, trigger limits for move-on provisions and/or seasonal closures.	The Australian Fisheries Management Authority has advised that trigger limits related to the 'move-on' provisions for vulnerable marine ecosystems have been reviewed, considering the findings of bottom fishery impact assessments for the South Pacific Regional Fisheries Management Organisation (SPRFMO) and the Southern Indian Ocean Fisheries Agreement (SIOFA) areas. In response, in 2012 the trigger limit for corals and sponges to trigger 'move-on' provisions in auto-longline fishing methods was reduced from 50 kg to 10 kg.	The Department of Sustainability, Environment, Water, Population and Communities considers that this recommendation has been met.

Recommendation	Progress	Recommended Action
<p>2.</p> <p>a. The Australian Fisheries Management Authority to assess the sustainability of harvest rates by Australian flagged vessels of target species in the fishery; and</p> <p>b. the Australian Fisheries Management Authority to implement appropriate management measures designed to achieve the sustainable harvest by Australian flagged vessels of each target species.</p>	<p><i>a) Sustainability assessment</i></p> <p>The Australian Fisheries Management Authority commissioned a sustainability assessment, ‘Sustainability of harvest levels by Australian flagged vessels in the high seas areas of the South Pacific Ocean and South Indian Ocean’ which was completed in November 2012. The findings of the sustainability assessment are reported in detail above in Table 1, noting the uncertain status of three stocks accessed by Australian flagged vessels.</p> <p><i>b) Management measures to achieve sustainable harvest of target species</i></p> <p>The Australian Fisheries Management Authority has implemented a range of new management measures for Australia’s High Seas Permits aimed at achieving sustainable harvest of target species. Fishing by Australian flagged vessels in the SPRFMO and SIOFA areas is restricted to a fishing ‘footprint’, which are areas previously fished by Australian operators during historical reference periods. Catch trigger limits set on average catch from historical reference periods, which trigger a review of management measures, are in place for the SPRFMO and SIOFA areas (see Table 1 for a more detailed description under ‘Management arrangements’).</p>	<p>The department considers the issues covered by this recommendation to be partially met and is ongoing. The department recommends that it should continue in a modified form (see Recommendation 4, Table 4).</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of Australia's High Seas Permits against the requirements of the EPBC Act related to decisions made under Part 13A

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

Part 13A

Section 303BA Objects of Part 13A
<p>(1) The objects of this Part are as follows:</p> <ul style="list-style-type: none"> (a) to ensure that Australia complies with its obligations under CITES² and the Biodiversity Convention; (b) to protect wildlife that may be adversely affected by trade; (c) to promote the conservation of biodiversity in Australia and other countries; (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; (e) to promote the humane treatment of wildlife; (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

² Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13A

Section 303DC Minister may amend list	The department's assessment of Australia's High Seas Permits
<p>(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none">(a) including items in the list;(b) deleting items from the list; or(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or(d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or(e) correcting an inaccuracy or updating the name of a species.	<p>The department recommends that product derived through operation of Australia's High Seas Permits be included in the list of exempt native specimens until 18 May 2018.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment under Part 10 of the EPBC Act has been undertaken for Australia's High Seas Permits.</p>

<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The department considers that the amendment of the list of exempt native specimens to include product derived through operation of Australia's High Seas Permits would be consistent with the provisions of Part 13A (listed above this table) as:</p> <ul style="list-style-type: none"> ▪ under the Permits, operators will not harvest any CITES listed species ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1) ▪ the operation of Australia's High Seas Permits is unlikely to be unsustainable and threaten biodiversity within the next 5 years, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.
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<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The department considers that the consultation requirements have been met. The Delegate of the Minister for Sustainability, Environment, Water, Population and Communities consulted with the Australian Fisheries Management Authority, whom has management responsibility for Australia's High Seas Permits. The Department of Agriculture, Fisheries and Forestry was also consulted. In addition, the proposal to amend the list of exempt native specimens was advertised on the department's website and comment was invited from interested people for a period of 23 business days. One comment was received during the public comment period. The department has considered the public comment received and concluded that the issues raised are out of scope of this assessment as it relates to Australia's interests in fishing of highly migratory species, which are managed under other existing Australian fisheries management regimes.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for Australia's High Seas Permits made under section 303DC will be gazetted and made available through the department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of Australia's High Seas Permits
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	Having regard to the management arrangements that apply to the High Seas Permits, such as restricting fishing activity to areas previously fished during a historical reference period, gear restrictions, trigger limits for catch and interactions with vulnerable marine ecosystems which trigger management responses, the department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

The Department of Sustainability, Environment, Water, Population and Communities' final recommendations to the Australian Fisheries Management Authority for Australia's High Seas Permits

The material submitted by the Australian Fisheries Management Authority indicates that fishing operations governed by Australia's High Seas Permits are well managed and operate in line with the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.

Stock Status

The Australian Bureau of Agricultural and Resource Economics and Sciences' report 'Sustainability of harvest levels by Australian flagged vessels in the high seas areas of the South Pacific Ocean and South Indian Ocean' categorises no species stock accessed by Australian flagged vessels as 'overfished' or 'subject to overfishing'. However, three stocks accessed by Australian flagged vessels were classified as 'uncertain', these being; orange roughy (*Hoplostethus atlanticus*) in the South Pacific Regional Fisheries Management Organisation (SPRFMO) area, orange roughy in the Southern Indian Ocean Fisheries Agreement (SIOFA) area and alfonso (*Beryx* spp.) in the SIOFA area. The 'uncertain' status was assigned to these stocks because there was insufficient resolution in catch and effort data to determine whether current levels of harvest of these stocks are sustainable.

Australia's High Seas Permits are managed via permit conditions which are set at the start of each year. Management arrangements include:

- area restrictions
- gear restrictions, and
- trigger limits for catch and interactions with vulnerable marine ecosystems (corals and sponges).

The department considers that the range of management measures is sufficient to ensure that the fishing operations under Australia's High Seas Permits are conducted in a manner that does not lead to overfishing. Although three stocks accessed by Australian flagged vessels are classified as 'uncertain', the Australian Fisheries Management Authority has advised the department that it limits annual catch to the average annual catch level for all target species between 2002 and 2006 for the SPRFMO area and between 1999 and 2009 for the SIOFA area, to mitigate the impact on these species.

Ecosystem Impacts

Taking into account the management arrangements governing Australia's High Seas Permits, especially:

- the restriction of fishing operations to areas previously fished (fishing 'footprints') during historical reference periods, and
- the 'move-on' provisions for interactions with vulnerable marine ecosystems, which prescribe that a vessel must cease fishing at that location and not fish within five nautical miles of that location for the remainder of the fishing season,

the department considers that fishing operations under Australia's High Seas Permits will be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

Conclusion

The department considers that product derived through operation of Australia's High Seas Permits should be exempt from the export controls of Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), with that exemption to be reviewed in five years. To contain and minimise the risks in the longer term, the recommendations listed in Table 4 have been made. Unless a specific timeframe is provided, each recommendation should be addressed during the five year period.

Table 4: Australia's High Seas Permits Assessment – Summary of Issues and Recommendations, May 2013

Issue	Recommendation
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Recommendation 1:</p> <p>Operation of Australia's High Seas Permits will be carried out in accordance with the permit conditions, in force under the <i>Fisheries Management Act 1991</i>.</p> <p>Recommendation 2:</p> <p>The Australian Fisheries Management Authority to inform the Department of Sustainability, Environment, Water, Population and Communities of any intended material changes to the management arrangements under Australia's High Seas Permits that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to the department annually in order for the performance of the fishing operations under Australia's High Seas Permits and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed over the next five years. Annual reports should include a description of the fishing operations, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors under Australia's High Seas Permits, status of target stock, interactions with protected species, impacts of the fishing operations on the ecosystem in which it operates and progress in implementing the recommendations resulting from the previous assessment (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition' available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Recommendation 3:</p> <p>The Australian Fisheries Management Authority to produce and present reports to the Department of Sustainability, Environment, Water, Population and Communities annually as per Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.</p>

Issue	Recommendation
<p><u>Improved certainty in future stock assessments</u></p> <p>The Australian Bureau of Agricultural and Resource Economics and Sciences completed the ‘Sustainability of harvest levels by Australian flagged vessels in the high seas areas of the South Pacific Ocean and South Indian Ocean’ (the sustainability assessment) in November 2012. The sustainability assessment classified none of the primary fish stocks accessed by Australian flagged vessels on the high seas as ‘overfished’ or ‘subject to overfishing’. However, the sustainability assessment classified three stocks accessed by Australian operators as ‘uncertain’, these being; orange roughy (<i>Hoplostethus atlanticus</i>) in the South Pacific Regional Fisheries Management Organisation (SPRFMO) area, orange roughy in the Southern Indian Ocean Fisheries Agreement (SIOFA) area and alfonsoino (<i>Beryx spp.</i>) in the SIOFA area.</p> <p>Both orange roughy and alfonsoino have a wide global distribution and are known to occur in the northern and southern hemisphere oceans at depths down to 1800 metres. Both species form dense spawning and feeding aggregations on or near topographic features such as seamounts, continental slopes and canyons. Orange roughy has been a key species in trawl fishing operations by Australian flagged vessels in the SPRFMO area and both orange roughy and alfonsoino have been key species in trawl catches in the SIOFA area (Roach, 2012).</p> <p>Orange roughy are recognised as a species that is long lived and slow to mature, making it particularly vulnerable to overfishing (AFMA, 2006). Within Australian waters, orange roughy have been listed as conservation dependent under the EPBC Act since December 2006. Fishing for the species in Australian waters is still permitted subject to strict management measures specified in the ‘Orange Roughy Conservation Programme’. The department notes that the same strict management measures contained within the ‘Orange Roughy Conservation Programme’ are not applied to fishing activity by Australian flagged vessels on the high seas. Recognising the vulnerability of orange roughy to overfishing, the department considers it important that it be determined with increased certainty whether Australia’s harvest levels of the species are contributing to overfishing of its stocks.</p>	<p>Recommendation 4:</p> <p>The Department of Agriculture, Fisheries and Forestry, in conjunction with the Australian Fisheries Management Authority, to continue to investigate key non-highly migratory species stocks harvested under Australia’s High Seas Permits, with a view towards improved certainty in future stock assessments of these species. Investigations should be consistent with the research priorities identified by the relevant bodies of applicable international regional fisheries agreements, as well as any relevant research agencies.</p>

Issue	Recommendation
<p><u>Improved certainty in future stock assessments (cont...)</u></p> <p>Alfonsino contributed to around 51 per cent of Australia's catch in the SIOFA area between 1999 and 2010, and was heavily targeted by Australian flagged vessels, mostly on the Ninety East Ridge, in 2002 and 2003. Catch declined sharply after 2003 (Woodhams et al., 2012). Given that alfonsino prefer depths between 400 and 600 metres, and that fishing activity by Australian flagged vessels for alfonsino has only been focussed on a small part of the total SIOFA area of that depth band, it is unlikely that operations by Australian flagged vessels have caused extensive depletion of the species across the entire Indian Ocean. Nonetheless, the department notes the suggestion raised in the Sustainability Assessment's that historical catches by Australian flagged vessels could have reduced the alfonsino biomass to an overfished state at fishing grounds where activity was concentrated (Woodhams et al., 2012).</p> <p>The department considers it important that further investigation be made about the status of alfonsino at grounds historically fished by Australian flagged operators, so future stock assessments for the species can provide more certainty about the sustainability of the species in those areas.</p> <p>The department considers that, given the 'uncertain' status of these stocks accessed by Australian flagged vessels it is imperative that further investigations be aimed at improving certainty and resolution in future stock assessments of key non-highly migratory species. The department considers this information important for the appropriate development of management responses, and for the future ability of demonstrating that fishing operations are being managed in an ecologically sustainable manner. This recommendation is supported by the conclusions of the Sustainability Assessment (Woodhams et al., 2012).</p>	

Issue	Recommendation
<p><u>Risks to bycatch</u></p> <p>In February 2013, the Commission of SPRFMO agreed upon a new conservation and management measure (CMM) which prescribes standards for member nations on data collection for retained and non-retained catch. It specifies standards for information to be collected by operators and observers. For vessel operators and observers, the CMM specifies that for all fishing methods in the SPRFMO area, the estimated catch retained on board by species in live weight and an estimation of the amount of living marine resources discarded by species if possible, should be recorded (SPRFMO, 2013b). No such conservation and management measure has been specified for the SIOFA area as yet.</p> <p>The Australian Fisheries Management Authority has advised the department that operators under Australia's High Seas Permits are required to report on bycatch and discards in logbooks. Information on bycatch and discards is also collected by observers on board. However, there is uncertainty regarding the accuracy of the data recorded in logbooks and whether any data validation has been undertaken of bycatch records in logbooks. Risk assessments of bottom fishing activities by Australian flagged vessels on the high seas have focussed on vulnerable marine ecosystems, with particular focus on sessile (attached) benthic organisms. The department is unaware of any risk assessment of the vulnerability of other bycatch and discard species, such as bony fish, sharks, rays and mobile invertebrates, to fishing operations of non-migratory species on the high seas by Australian flagged vessels.</p> <p>The department considers it important that the Australian Fisheries Management Authority continue to require operators of Australian flagged vessels to collect and record information on the composition and abundance of retained and non-retained catch. This information may be used in future to determine whether the fishing operations of Australian flagged vessels on the high seas are being conducted in a manner that does not threaten bycatch species. It will also be useful for informing future management responses before Australia's High Seas Permits are next assessed by the Australian Government under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>.</p>	<p>Recommendation 5:</p> <p>For the Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) continue to collect reliable information on the composition and abundance of retained and non-retained catch, and b) investigate the risk to bycatch and discard species, and based on the findings, implement appropriate management responses.

Issue	Recommendation
<p><u>Cross-jurisdictional collaboration</u></p> <p>Demersal fishing on the high seas developed during the 1970s, with Australia expanding deep sea targeting of orange roughy on the high seas in the early 1990s. A large number of the demersal fish species harvested by Australian flagged vessels on the high seas are also taken by other fishing nations, such as New Zealand. The discrete fish stocks accessed by Australian flagged vessels are also being accessed by vessels flagged to other nations. The primary species consist of orange roughy, oreos, alfonsino, grenadiers, blue eye trevalla and morwongs (Bensch et al., 2009).</p> <p>The department recognises the effort that the Department of Agriculture, Fisheries and Forestry and the Australian Fisheries Management Authority have put into responding to the recommendations made by the South Pacific Regional Fisheries Management Organisation and the Southern Indian Ocean Fisheries Agreement. Since 2008, the South Tasman Rise, an area located just outside the Australian Exclusive Economic Zone, has been closed to Australian and New Zealand flagged vessels (Patterson and Skirtun, 2012). The Australian Fisheries Management Authority has advised that the area will remain closed to Australian flagged vessels until agreement is reached with New Zealand on the area's future management.</p> <p>The department recognises the important role that regional fisheries treaties and agreements play in encouraging internationally coordinated management efforts for shared fish stocks on the high seas. The department recommends that the Department of Agriculture, Fisheries and Forestry and the Australian Fisheries Management Authority continue to closely engage with other major fishing nations in the South Pacific and the Southern Indian Ocean in pursuit of appropriate research and management of shared stocks. Take by other nation's high seas fisheries should also be considered when undertaking future stock and environmental impacts assessments for Australian fishing activity in these areas.</p>	<p>Recommendation 6:</p> <p>The Department of Agriculture, Fisheries and Forestry, in conjunction with the Australian Fisheries Management Authority, to work through the relevant bodies of applicable international regional fisheries agreements, to ensure appropriate research and management, among Member nations, for species harvested under Australia's High Seas Permits.</p>

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Acronyms

AFMA	Australian Fisheries Management Authority
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMM	Conservation and management measure
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FAO	Food and Agriculture Organisation
SIOFA	Southern Indian Ocean Fisheries Agreement
SPRFMO	South Pacific Regional Fisheries Management Organisation
UNGA	United Nations General Assembly